

# UNIVERSITY OF LONDON



## POSTGRADUATE MEDICAL SCHOOL OF LONDON

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SHEphards Bush 1260 (4 lines)

Department of Bacteriology.

DUCANE ROAD  
LONDON, W.12

10th. July, 1953.

My dear Lederberg,

When I met Dr. Scarr from your lab. at C.S.H. he told me that he did not think you had succeeded in reproducing my Hfr results with the Cavalli strain. I am therefore enclosing my spontaneously arising M- strain (which is  $S^{+}Az^{r}$ ) and also an  $S^{+}Lac^{+}Mal^{+}B_{1}^{-}$  Hfr prototroph derived from it. Using this latter, I found that when I selected for  $TL^{+}$  or  $Lac^{+}$ , using W677.  $S^{+}F^{-}$  as test strain on  $MA + B_{1} + S$ , I got typical Hfr behaviour: but using 58-161.  $F^{-}$  as tester (i.e. selecting for  $M^{+}$ ), or selecting for  $Mal^{+}$  on suitably supplemented media, the recombination rate was about the same as with a similar  $F^{+}$  control prototroph. It is nearly three months since I have used these strains and I do not know to what extent, if at all, they may have reverted to  $F^{+}$ . I have not yet observed this reversion in my Hfr strains.

As regards my visit to Madison, this will not be on September 1. I will only be arriving at N.Y. on Aug. 29 and will have to acquire a car so I will probably not set out until Sept. 3-4. I hope to park my family with the Benzers at Lafayette and either drive to Madison or go by train. I will let you know later a closer date.

Yours sincerely,

A handwritten signature in cursive script, reading "Bill Hayes".

Dr. J. Lederberg,  
Department of Genetics,  
University of Wisconsin,  
Madison, 6.  
Wisconsin, U.S.A.

*P.S. The M-Hfr strain was derived  
from Spicer's 58-161, converted to  $F^{+}$ .  
As you know, this strain, which I sent to  
Spicer when he was with you, behaves like  
Cavalli's "refractory"  $F^{-}$  strain.*